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Notice of Allowability

Application No.

10/608,795

Examiner

Albert T. Chou

Applicant(s)

LONG ET AL.

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed on 27 June 2003.
2. ☒ The allowed claim(s) is/are 1-20 and 22.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David E. Huang on May 17, 2007.

Claims 20, 21 and 24 of the application have been amended as shown in the attached APPENDIX (6 pages).

Allowable Subject Matter

2. Claims 1-20 and 22-24 are allowed.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance.

The prior art does not teach or fairly suggest the following:

A method for managing interlayer notification events in a hierarchical scheduler to receive, in a layer engine, a request to transfer an entry from a child schedule to a

parent schedule; to determine, by a real-time event manager in the layer engine, whether to defer, via an entry in a deferral queue, the entry from the child schedule to the parent schedule; and to recompute, if the entry was deferred, whether to transfer the deferred entry, and if the recomputing indicates retaining the deferred event, transferring another entry from the child schedule to the parent schedule, as specified in claims 1 and 19; or

A data communications device or a computer readable storage medium storing computer program for managing interlayer notification events in a hierarchical scheduler comprises a layer engine operable to receive a request to transfer an entry from a child schedule to a parent schedule; a real-time event manager operable to determine whether to defer the entry from the child schedule to the parent schedule; and a deferral queue responsive to the real-time event manager and the layer engine and operable to store an indicator to the deferred entry, the real-time event manager further operable to recompute, if the entry was deferred as a result of determining, whether to transfer the deferred entry and, if the recomputing indicates retaining the deferred event, transfer another entry from the child schedule to the parent schedule, as specified in claims 10, 20 and 22.

The closest prior arts, US Patent No. 6,438,134 to Chow et al. or US Patent Application Pub No. 2003/01112818 A1 by Schmidt, either singularly or in combination, fails to anticipate or render the above limitations obvious.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent No. 6,438,134 to Chow et al. disclose "Two-Component Bandwidth Scheduler Having Application In Multi-Class Digital Communications Systems"
- US Patent Application Pub. No. 2002/0126690 A1 by Narayana et al. disclose "Packet Transmission Scheduling In A Data Communication Network"
- US Patent Application Pub. No. 2004/0064679 A1 by Black et al. disclose "Hierarchical Scheduling Windows"
- US Patent Application Pub. No. 2003/0112818 A1 by Schmidt discloses "Deferred Queuing In A Buffered Switch"
- US Patent Application Pub. No. 2005/0002375 A1 by Gokhale et al. disclose "Advanced TDMA Resource Management Architecture"

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Albert T. Chou whose telephone number is 571-272-6045. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham, can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Albert T. Chou
May 21, 2007

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CHI PHAM
SUPERVISORY PATENT EXAMINER

5/22/07